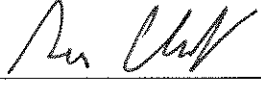

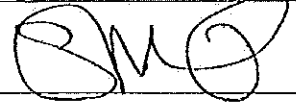


Procedure, Field Replacement, Cosel 150W Power Supply Kit

Approval:

Approving Authority	Signature	Date
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Revision History

Rev.	ECO	Description of Change	Date
A	8791	Initial release	08-05-2011
B	9041	Clerical revisions	10-03-2011

Procedure, Field Replacement, Cosel 150W Power Supply Kit

1. Brief Summary:

Troubleshooting document for diagnosing a fault with and replacing the Cosel 150W power supply unit.



2. Checklist:

- Verify AC Voltage is present entering the power supply
- Verify DC Voltage is present exiting the power supply

3. Theory of Operation:

The Cosel 150W power supply is switch mode & will convert either 110VAC or 220VAC into 24VDC. This component is universally used in the DAC-2202, XX97 & XX06 pedestal power supplies, XX09 & XX10 PCU's & NJRC 24V BUC Power supplies meaning only a single unit is needed as a spare to cover a wide range of applications.

4. Troubleshooting:

<p>1. Measure the input voltage into the power supply on the 2 pins to the right of the connection block, 110 - 240 volts AC should be present. If no AC voltage is present verify the unit is switched on. If there is still no voltage present troubleshoot the source.</p>	
<p>2. Now measure the output voltage from the power supply on the 2 pins to the left of the connection block, the output should be 24VDC.</p>	

If the units AC input has been verified & the 24VDC is not present, the power supply is defective & needs to be replaced. If the power supply is outputting the 24VDC consistently then the power supply is operational & the problem lies elsewhere (possible failure with the PCU, DAC motherboard or harness connection).

Page 1 of 6	Sea Tel COBHAM	Document No 135263 Rev B
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Procedure, Field Replacement, Cosel 150W Power Supply Kit





5. Replacing the DAC-2202 Power Supply:

5.1. Tools.






- #1 Phillips Screwdriver
- Loctite 242

5.2. Procedure.

Procedure for replacing the DAC-2202 power supply, Sea Tel kit part number: 135341 (power supply part number: 125343-6).

<p>*Caution: Disconnect the vessels AC Voltage to the DAC prior to performing the below procedure.</p> <p>1. Using a #1 Phillips screwdriver undo the 6 screws retaining the DAC lid & remove it. Save the hardware for future use.</p>	
<p>2. Note the orientation of the AC & DC cables on both the power supply unit & the switch.</p>	
<p>3. Disconnect the AC power cables from the power switch.</p>	
<p>4. Turn the DAC assembly over & using a #1 Phillips screwdriver remove the two screws securing the power supply to the base of the DAC shell.</p>	

Procedure, Field Replacement, Cosel 150W Power Supply Kit

<p>5. Turn the DAC the correct way up & remove the two screws securing the power supply to the side of the DAC shell.</p>	
<p>6. Raise the powers supply unit to allow clearance & remove the cover, then remove the DC power cables.</p>	
<p>7. Now remove the AC cables from the defective power supply & connect them to the replacement unit.</p>	
<p>8. Connect the DC cables to the power supply as shown on the right.</p>	
<p>9. Now install the 4 screws to secure the power supply into the DAC shell. Install the plastic cover over the terminal connections and reconnect the AC cables to the power switch as shown on the right.</p> <p>10. Reinstall the DAC lid & secure with the 6 screws removed in the first step, apply Loctite 242 to the threads.</p>	

Procedure, Field Replacement, Cosel 150W Power Supply Kit

6. Replacing the XX09 and XX10 Pedestal Power Supply:

6.1. Tools.

- 5/16" (8mm) Wrench/ Spanner
- 2mm Flat Blade (Terminal) Screwdriver
- Snips/ Cutters
- 3/16" (5mm) Allen Wrench/Key
- #1 Phillips Screwdrivers
- Cable Ties/Tie Wraps
- Loctite 242

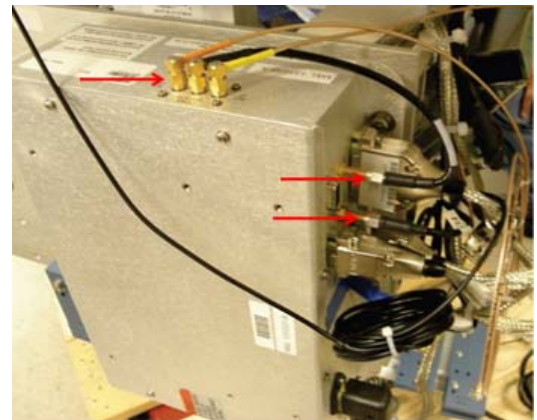
6.2. Procedure.

Procedure for replacing the XX09 Pedestal power supply unit, Sea Tel part number: 125343-6. The PCU will have to be removed from the equipment frame to replace the power supply.

6.3. Removing the PCU.

***CAUTION:** Power down the pedestal before following this procedure.

1. Using a 5/16" (8mm) wrench remove the 3 coax cables from the switch assembly mounted in the PCU.
2. Using a 5/16" (8mm) wrench remove the 2 coax cables from the 400MHz modem PCB (taking note of where the SMA connectors need to be reconnected).
3. Using a 2mm flat blade screwdriver, remove the D-Sub connectors.
4. Unplug the GPS cable.
5. Using cutters cut the large cable tie on the power cord connector and disconnect the power cord.



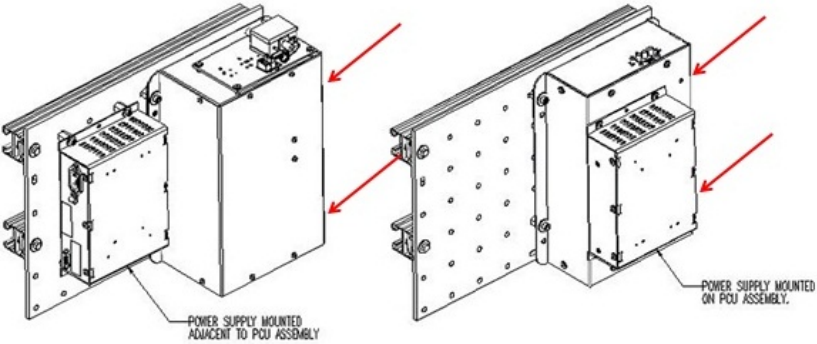
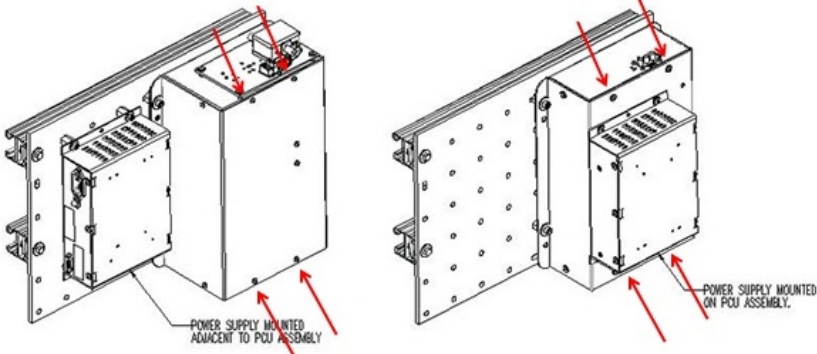
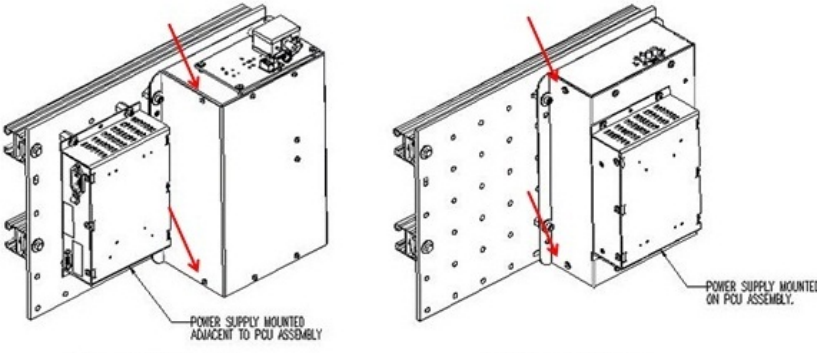
6. Using a 3/16" (5mm) Allen wrench, remove the 4 cap head screws that mount the PCU to the equipment frame. Retain these screws for future use.

7. With the PCU removed from the equipment frame, refer to the following procedure regarding removing the cover from the assembly.



Procedure, Field Replacement, Cosel 150W Power Supply Kit

6.4. Removing the PCU Cover.

<p>1. Using a #1 Phillips screwdriver, remove the 2 Phillips screws in the lip edge above the connectors.</p>	 <p>OLD CONFIGURATION</p> <p>NEW CONFIGURATION</p>
<p>2. Remove the 4 Phillips screws on the top of the PCU.</p>	 <p>OLD CONFIGURATION</p> <p>NEW CONFIGURATION</p>
<p>3. Remove the 2 Phillips screws on the back side of the PCU.</p> <p>4. Retain all of the screws for future use.</p> <p>5. Remove the cover of the PCU</p>	 <p>OLD CONFIGURATION</p> <p>NEW CONFIGURATION</p>

Procedure, Field Replacement, Cosel 150W Power Supply Kit

6.5. Replacing the XX09 and XX10 Pedestal Power Supply.

1. Disconnect the Power Supply Wires

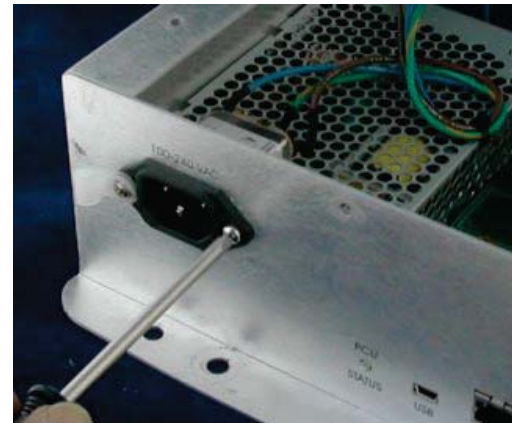
Large Blue – A/C (N)
Large Brown – A/C (L)
Green w/Yellow stripe – FG
Small Brown (GND) – V-
NC
Small Blue (+24 VDC) - V+
NC



2. From the bottom of the PCU, use a #1 Phillips screwdriver to remove the 2 Phillips screws that mount the Power Supply inside the PCU. Retain these screws for future use.



3. From the outside of the PCU, remove the 2 Phillips screws that mount the Power receptacle. Retain these screws for future use.
4. Remove the receptacle.
5. Remove the defective Power Supply.
6. Install the replacement Power Supply.
7. Apply Loctite 242 to the 2 Phillips screws and mount the Power Supply into the PCU.
8. Apply Loctite 242 to the 2 Phillips screws and reinstall the Power receptacle into the PCU.
9. Reconnect the Power Supply Wires as shown above.



10. If all repair work is now completed, reinstall the PCU cover and the PCU to the equipment frame.
11. Secure the power cable into the PCU A/C socket using a cable tie.

